

## ANNOTATION OF THE SCIENTIFIC PAPERS

of Assoc. Prof. Teofana Valentinova Dimitrova  
presented for participation in the competition for the academic position “professor” in the area  
of higher education: 3. Social, economic and legal sciences,  
professional field: 3.8 Economics (Marketing),  
as announced in the State Gazette No 96/11.11.2025

### B3. Habilitation thesis - monograph

1. **Dimitrova, T.** (2025). *Sustainable consumer behavior: From global evidence to local insights among Generation Z in Bulgaria*. Plovdiv University Press. ISBN 978-619-281-106-8, (209 c.).

#### Abstract

The monograph is devoted to an important and timely topic of contemporary society – sustainable consumer behavior (SCB) and how young people form and express their consumer choices in the context of intensifying global environmental challenges. The first chapter outlines the development of scientific output on sustainable consumer behavior based on a bibliometric analysis of publications indexed in two globally recognized scientific databases – Scopus and Web of Science – covering the period from 1999 to 2024. The analysis identifies influential journals, leading authors and research networks, dominant countries, key thematic areas, and their evolution over time. The bibliometric approach not only systematizes scholarly progress in the selected field but also reveals partially explored contexts and potential directions for future research. It serves as a point of departure and an analytical foundation for the subsequent part of the monograph. The second chapter presents a systematic literature review of SCB among Generation Z, conducted in accordance with the PRISMA methodology established in international academic practice. The search for published empirical studies was conducted in three databases – Scopus, Web of Science Core Collection, and ProQuest (scholarly and peer-reviewed journals) – based on clearly defined inclusion and exclusion criteria. The chapter identifies the main concepts, determinants, barriers, and behavioral outcomes, as well as the theoretical frameworks employed. The third chapter presents the results of an empirical study on sustainable clothing consumption among Gen Z in Bulgaria. It describes the methods used for data analysis, the results of the hypothesis testing, and the discussion of the identified relationships and findings.

#### **G4. Published monographs not submitted as the principal habilitation thesis**

2. Станев, В., **Димитрова, Т.**, Димитрова, Г., Стойчев, Л., Братков, М., & Петков, В. (2021). *Маркетингови комуникации и изграждане на конкурентни предимства от висшите училища*. Пловдивско университетско издателство. ISBN 978-619-7663-03-7, (лично участие 125 с.).

##### **Abstract**

The study and conceptualization of the relationship between marketing communications and the development of competitive advantages within the context of the university educational environment support processes aimed at more fully satisfying needs and enhancing the adaptation of higher education institutions (HEIs) to the requirements of consumers of educational product. This collective monograph is devoted specifically to marketing communications as a key factor in building competitive advantages for HEIs that are part of the higher education system (HES).

The personal contribution of the candidate for the academic position of “professor” lies in the systematization and critical interpretation of the theory of competitiveness in higher education, as well as in the identification and analysis of the factors determining the competitiveness of higher education institutions, including the instruments of the marketing mix, with a particular focus on the educational product offered by HEIs. Within this framework, an analysis is provided of the development of the higher education system in Bulgaria – from the Bologna Process to the present day – as well as of key aspects of the current state of higher education in the country, including the regulatory and institutional framework, entering into the HES, academic staff, and expenditures on higher education. In addition, the results of an empirical study dedicated to the communication practices of Bulgarian higher education institutions are analyzed and synthesized.

3. Станев, В., **Димитрова, Т.**, Ковачева, С., Генова, Я., Димитрова, Г., Бойкова, Ф., Левтерова, Д., Владиков, А., Стойчев, Л., & Василева-Прокопова, М. (2020). *Стратегия за изграждане на публичен образ на Пловдивския университет „Паисий Хилендарски“*. Коала прес. ISBN 978-619-7536-29-4, (лично участие 102 с.).

##### **Abstract**

The image of higher education institutions has become established as a key factor for their visibility, competitiveness, and sustainable development in a dynamic educational environment. This collective monograph examines the perceptions of key target groups regarding the public image of Plovdiv University Paisii Hilendarski (PU). Six analyses of the external and internal environment were conducted, serving as the basis for a comprehensive SWOT analysis of the university. As a result, a draft strategy for building the public image of PU was developed, aligned with national and European strategic policy documents.

The contribution of the candidate for the academic position of “professor” consists of participation in the analysis of the competitive environment, as well as in the design,

administration, processing, and interpretation of data from three empirical studies conducted among key stakeholders – prospective students and their parents, as well as students from the institution’s nine faculties. In addition, a SWOT analysis applying the AHP method (Analytical Hierarchy Process) was developed. The results obtained demonstrate high practical relevance for the strategic management of Plovdiv University Paisii Hilendarski.

#### **G5. Published a book based on a defended dissertation for the award of the educational and scientific degree "Doctor"**

4. **Димитрова Т.** (2018). *Управление на продуктовия микс (на примера на пивоварната индустрия в България)*, УИ „П. Хилендарски“. ISBN 978-619-202-381-2, (167 с.).

##### **Abstract**

The book is devoted to the product mix as a key instrument within the marketing mix and a factor in firms’ competitiveness. The first chapter systematizes the theoretical foundations of the product mix and its elements, examines the basic strategic decisions related to its development, and discusses the organizational forms as well as the applicable statistical and mathematical tools used in its management. On this basis, a conceptual model of a product mix management system is proposed. The second chapter analyzes the state and development of the brewing industry in Bulgaria over the period 2005-2010, with an emphasis on market leadership, investments, the industry’s product mix, and key sectoral indicators. The chapter also outlines the sector’s future development prospects. The third chapter presents the methodology and results of an empirical study aimed at validating the proposed model. Conclusions and practical recommendations for product mix management in the brewing industry are formulated.

#### **G8. Studies published in scientific journals, referenced and indexed in internationally recognized scientific databases (Scopus and/or Web of Science)**

5. Ilieva, I., Terziyska, M., & **Dimitrova, T.** (2025). From words to ratings: Machine learning and NLP for wine reviews. *Beverages*, 11(3), 80, 1–30. ISSN 2306-5710. <https://doi.org/10.3390/beverages11030080> **Scopus** (Q2, SJR 2024 = 0.546); **Web of Science** (Q3, IF 2024 = 2.7).

##### **Abstract**

Wine production is an important sector of the food industry in Bulgaria, contributing to both economic development and cultural heritage. The present study aims to show how natural language processing (NLP) and machine learning methods can be applied to analyze expert-written Bulgarian wine descriptions and to extract patterns related to wine quality and style. Based on a bilingual dataset of reviews (in Bulgarian and English), semantic analysis, classification, regression and clustering models were used, which combine textual and structured data. The descriptions were transformed into numerical representations using a pre-trained

language model (BERT), after which algorithms were used to predict style categories and ratings. Additional sentiment and segmentation analyses revealed differences between wine types, and clustering identified thematic structures in the expert language. The comparison between predefined styles and automatically derived clusters was evaluated using metrics such as Adjusted Rand Index (ARI) and Normalized Mutual Information (NMI). The resulting analysis shows that text descriptions contain valuable information that allows for automated wine profiling. These findings can be applied by a wide range of stakeholders—researchers, producers, retailers, and marketing specialists.

6. **Dimitrova, T.,** Ilieva, I., & Toncheva, V. (2025). Determinants of student loyalty and word of mouth in dual VET secondary schools in Bulgaria. *Administrative Sciences*, 15(9), 348, 1–22. ISSN 2076-3387. <https://doi.org/10.3390/admsci15090348> **Scopus** (Q2, SJR 2024 = 0.706); **Web of Science** (Q2, IF 2024 = 3.1).

### **Abstract**

In response to the growing importance of vocational education for youth employability, this study examines students' perceptions of dual vocational education and training (dVET) in Bulgaria, focusing on the following determinants of student loyalty (SL) and word-of-mouth communication (WOM) in the secondary education context: brand associations, brand relevance, brand image, image of dVET, service quality, and student satisfaction, based on previously validated scales adapted to the Bulgarian context. A structured questionnaire was administered to a target population of 608 students across nine vocational secondary schools in the Plovdiv region. A total of 507 usable surveys were collected from students in 11th and 12th grades who were actively participating in work-based learning. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with the SmartPLS 4 software. The findings indicate that brand image is the strongest direct predictor of the image of dVET. Furthermore, student satisfaction stands out as the most influential antecedent of WOM. The indirect pathways from service quality to both SL and WOM, mediated by student satisfaction, underscore the pivotal role of satisfaction as a transmission mechanism. The study contributes to the limited empirical research on branding in dVET and offers insights for policymakers, school administrators, and employers seeking to improve the attractiveness of these pathways.

7. **Dimitrova, T.,** & Ilieva, I. (2023). Consumption behaviour towards branded functional beverages among Gen Z in Post-COVID-19 times: Exploring antecedents and mediators. *Behavioral Sciences*, 13, 670, 1–24. ISSN 2076-328X. <https://doi.org/10.3390/bs13080670> **Scopus** (Q2, SJR = 0.616); **Web of Science** (Q2, IF = 2.5).

### **Abstract**

This study investigates the predictors and mediators of branded functional beverage consumption behaviour (CB) within the Gen Z demographic group in Bulgaria. An integrated model based on

two widely known psychosocial theories was developed to examine the relationships between the consumers' personal values within the value–belief–norm theory and the components of the protection motivation theory (PMT). The conceptual framework included two more influencing factors whose impact had not been researched in depth in previous studies concerning CB—namely, the role of media (RM) and branded functional beverage health benefits (HB). An empirical survey based on 435 Gen Z members aged between 16 and 26 years was conducted. Structural equation modelling was used to analyse the proposed hypotheses. The results revealed that the consumers' personal values were significant predictors of the PMT threat and coping appraisal components, which, in turn, had a significant positive impact on CB. CB was not directly affected by the branded functional beverage health benefits but was indirectly influenced by the HB via purchase intention toward functional beverages and RM. The study highlighted the important role of RM, which directly and indirectly affected CB. The theoretical and practical implications were discussed, and recommendations were given for raising Gen Z's awareness of the benefits of functional beverages and increasing their consumer acceptance.

8. **Dimitrova, T.,** Ilieva, I., & Stanev, V. (2022). I consume, therefore I am? Hyperconsumption behavior: Scale development and validation. *Social Sciences*, 11(11), 532, 1–21. ISSN 2076-0760. <https://doi.org/10.3390/socsci11110532> **Scopus** (Q2, SJR = 0.501); **Web of Science** (ESCI).

### **Abstract**

Social and material models consider hyperconsumption to be an unsustainable practice of consumer behavior that is responsible for the considerable damage inflicted upon the planet. The primary objective of this research study was to develop and validate a novel measurement scale to assess hyperconsumption behavior (HB) from a consumer's point of view. Based on the literature on measurement theory, an HB scale was developed and validated over three studies. The first study consisted of item development, while the second study focused on exploring and confirming the factor structure of the scale. The investigations revealed that hyperconsumption behavior was a first-order construct with four underlying dimensions: shopping control (food); perceived repair benefits; possession of a large amount of goods; and experiential consumption. The third study assessed the nomological validity of the proposed scale by testing its association with two relevant scales of materialism and sustainable purchase behavior.

9. **Dimitrova, T.,** Ilieva, I., & Angelova, M. (2022). Exploring factors affecting sustainable consumption behaviour. *Administrative Sciences*, 12, 155, 1–22. ISSN 2076-3387. <https://doi.org/10.3390/admsci12040155><sup>1</sup> **Scopus** (Q2, SJR = 0.53); **Web of Science** (ESCI).

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<sup>1</sup> The study *Exploring Factors Affecting Sustainable Consumption Behaviour* was initially published in the international journal *Administrative Sciences* (2022, 12, 155) and was subsequently selected by the publisher MDPI for inclusion in the peer-reviewed edited volume *Organizational Change and Management* due to its scientific significance, topical relevance, and contribution to research on sustainable consumer behavior. See: Maes, G. & Van

## Abstract

Business development policies cover both marketing and sales functions, as they are so intertwined in most firms. Thus, managers should comply with the factors that influence sustainable consumption behaviour. The study aims to investigate the effect of environmental knowledge (EK), materialism (MAT), environmental influences (EI), the promotion of sustainable consumption (PSC), and sustainable consumption behaviour intention (SCBI) on sustainable consumption behaviour (SCB). Although many studies have examined sustainability issues for various groups of countries, activities in this critical field in Bulgaria are severely limited, and integrated research on the subject is non-existent. This paper focuses on the importance of investigating various factors that influence sustainable consumer behaviour. A total of 489 complete and usable responses were collected from participants from all regions of Bulgaria between May 2022 and July 2022. The partial least square-structural equation modelling (PLS-SEM) and SmartPLS 4 software were employed to test the hypothesised relationships. The results indicated that EK and MAT significantly affected SCBI. Additionally, the analysis revealed the statistically significant impact of EK, MAT, EI, PSC, and SCBI on SCB. Moreover, this study demonstrated that SCBI significantly mediated the relationships between EK and SCB and between MAT and SCB. Finally, the outcomes of the moderation analysis showed that age moderated the relationship between SCBI and SCB.

10. **Dimitrova, T., & Ilieva, I.** (2021). Student brand loyalty to public higher education institution. *Interdisciplinary Studies of Complex Systems*, 19, 2021, 59–79. ISSN 2307-451 (Print), ISSN 2415-376 (Online) **Web of Science** (ESCI).

## Abstract

The study is a continuation of Publication 25. Its aim is to investigate and reveal the relationships between student brand loyalty (SBL) and four composite variables: brand associations (BA), brand information dissemination and sufficiency (BIDS), perceived quality (PQ), and student brand engagement (SBE). The paper also explores possible relations between SBE and the constructs BA, BIDS, and PQ. An empirical study was conducted among 250 students of three faculties in a public university in Bulgaria. The analysis included the maximum likelihood-ratio chi-square test (G-test), correspondence and multiple correspondence analysis. The results demonstrate the significance of all dependencies among the variables in the research model except for those between SBE and BA, PQ. Additionally, there has been little work on SBL relationships to selected variables. This study contributes to filling this gap in the research. The suggested research framework provides a useful toolkit in aid of higher education policymakers for diagnosing and upgrading the SBL.

11. **Dimitrova, T.,** Stoychev, L., & Desev, K. (2020). Marketing communication practices in Bulgarian higher education. *Ikonomicheski Izsledvania*, 29(1), 92–113. ISSN 0205-3292 **Scopus** (Q3, SJR = 0.2).

#### **Abstract**

This study presents the results from the second end-stage of a project on the topic of “Marketing Communication and Developing Competitive Advantages in Higher Education”, funded by the “Scientific Research” fund at Plovdiv University “Paisii Hilendarski” for the period 2017-2018. The main goal of the conducted empirical research is to describe and compare communication practices and activities by the Bulgarian state higher schools and universities in relation to their target groups – prospective students, current students, and employers. The object of study are the public higher schools and universities operating on the territory of the Republic of Bulgaria. The subject of study is marketing communication as a factor in building competitive advantages by Bulgarian higher schools and universities. Questionnaires were prepared and distributed online among experts in the statistical units in order to solve the posed research problems. Among the significant conclusions derived from the results are that surprisingly larger high schools rarely have their written communication strategy and medium and smaller ones seem to be more engaged with active strategic marketing communication planning; only 1/3 of higher schools are trying to track and evaluate the impact of marketing communication in changing their reputation what should be one of their long-term communication goals if planned effectively.

12. **Dimitrova, T.,** & Desev, K. (2018). Strategic analysis through the combination of SWOT, AHP and TOWS (A case study on the Neurological ward in the MHAT “Saint Panteleymon” – Plovdiv). *Ikonomicheski Izsledvania*, 27(3), 67–90. ISSN 0205-3292 **Scopus** (Q2, SJR = 0.245).

#### **Abstract**

This study aims to apply a hybrid SWOT–AHP–TOWS model for strategic analysis. The methodology and results of a survey conducted at the Neurological Ward (NW) of the Multi-profile Hospital for Active Treatment “Saint Panteleymon” in Plovdiv are presented. The combined application of the SWOT (Strengths, Weaknesses, Opportunities, Threats) and AHP (Analytic Hierarchy Process) methods is well established in academic research; however, it remains insufficiently applied in healthcare management practice. The integration of AHP with SWOT aims to determine the relative importance of individual factors and to assess their significance based on expert judgment. As a logical final stage of the SWOT–AHP application, a TOWS analysis is conducted to identify strategic alternatives by matching strengths, weaknesses, opportunities, and threats. The strategic alternatives identified for the Neurological Ward through the TOWS matrix may be utilized by the senior management of the Multi-profile Hospital for Active Treatment “Saint Panteleymon” in Plovdiv to support the generation of development strategies and facilitate future decision-making.

## G9. Studies published in non-refereed journals with scientific review or in edited collective volumes

13. **Dimitrova, T.,** Ilieva, I., & Angelova, M. (2023). Impact of public awareness on environmental well-being. *Научни трудове на Факултета по икономически и социални науки*, 12, 93–112. ISSN 1313-227x.

### Abstract

The study aims to empirically examine the relationship between public awareness (PA) and care for environmental well-being (CEW). In total, 483 respondents from all regions of Bulgaria participated in the study between May and July 2022. Covariance-based structural equation modeling (CB-SEM) using AMOS software was employed to test the hypothesized relationship. The analysis revealed that PA has a statistically significant impact on CEW. The findings of this study provide insightful implications for government policymakers and academics with regard to understanding sustainable consumption behavior of individuals in Bulgaria.

14. **Dimitrova, T.,** & Dimitrova, G. (2022). Digital transformation of industrial business, Vladikov N. (Ed.), In: *The Reindustrialization of Bulgaria–Mission Possible*, pp. 38–60, pp. 136–142, Plovdiv University Press. ISBN 978-619-7663-30-3.

### Abstract

The study examines the process of digital transformation (DT) in industrial enterprises as a key factor for Bulgaria's reindustrialization and competitiveness. It presents various definitions of and approaches to DT, the success factors and strategic stages of digital transformation, as well as its relationship with the Industry 4.0 concept. The study discusses the Internet of Things (IoT), artificial intelligence, Big Data, cloud services, and 5G networks, and analyzes their significance for business models and operational processes. A detailed analysis of Bulgaria's digital competitiveness is conducted using indices such as the Digital Economy and Society Index (DESI) and the IMD competitiveness indicators. Particular emphasis is placed on the role of human capital, connectivity, and the integration of digital technologies within enterprises. In conclusion, models for assessing digital transformation readiness and maturity applicable to industrial organizations are presented and compared.

15. **Dimitrova, T.,** & Yosifov, T. (2022). Marketing ethics on the market of mobile and banking services in Bulgaria. *Izvestiya. Journal of Economics, Management and Informatics*, 66 (3–4), 134 – 153. ISSN 2367-6957 (online), ISSN 2367-6361 (print). <https://doi.org/10.56065/IJUEV2022.66.3-4.134>

### Abstract

The main purpose of this study was to present selected results from a survey of end consumers' perceptions of ethical marketing behavior in the mobile telecommunications and banking services

markets in Bulgaria. Among the most important findings, the banking sector demonstrated better performance in terms of marketing ethics applied toward clients compared to the telecommunications sector. Instances of unethical marketing behavior ranked among the top three reasons for consumers' decisions to change their mobile operators or terminate their relationships with banking institutions. In addition, respondents' age significantly influenced their level of agreement with statements related to marketing ethics. Furthermore, a brief analytical review of the situation in the two sectors examined was conducted.

16. Станев, В., Димитрова, Т., & Стойчев, Л. (2019). Маркетингови комуникации на висшите училища в България. *Научни трудове на Факултета по икономически и социални науки*, 11, 256–281. ISSN 1313-227x.

### **Abstract**

The study presents the results of the pilot phase of a project entitled “Marketing Communications and the Development of Competitive Advantages by Higher Education Institutions,” funded by the Research Fund of Plovdiv University “Paisii Hilendarski” for the period 2017-2018. The main objective of the empirical research conducted is to examine the communication practices and activities of Bulgarian higher education institutions (HEIs) with respect to key stakeholder groups—namely the general public, prospective students, current students, and employers. This is an extremely important yet previously underexplored topic in Bulgaria, the understanding and refinement of which may contribute to higher levels of competitiveness and environmental adaptability, improved visibility, and more effective application of the results of HEIs' research activities. The object of the study comprises higher education institutions operating within the territory of the Republic of Bulgaria, with the pilot phase focusing on those with a student capacity exceeding 9,000. The subject of the research is marketing communications as a factor in building competitive advantages for Bulgarian HEIs. To address the research objectives, data were collected through semi-structured interviews (conducted by telephone) and the distribution of online questionnaires among experts in the primary units of analysis.

### **G6. Articles and reports published in scientific journals, referenced and indexed in internationally recognized scientific databases (Scopus and/or Web of Science)**

17. **Dimitrova, Т.**, Ilieva, I., & Terziyska, M. (2025). Understanding consumers' functional beverages purchase intention: Modeling the impact of explanatory factors. In *BIO Web of Conferences* 170, 01020. ISSN 2117-4458. <https://doi.org/10.1051/bioconf/202517001020>  
**Scopus.**

### **Abstract**

This study explores the factors influencing consumer purchase intentions toward functional beverages (FB), a rapidly growing sector in the health-focused global market. Specifically, the research investigates the impact of four key factors: egoistic value, altruistic value, perceived

health benefits of FB, and consumer innovativeness. Using a volunteer sample of 318 respondents, data were collected via an online questionnaire and analyzed through Covariance-Based Structural Equation Modeling (CB-SEM). The results confirm that all hypothesized relationships were significant, with egoistic and altruistic value orientations, perceived FB health benefits, and consumer innovativeness positively affecting purchase intentions. These findings highlight the importance of personal values, as well as health benefits and innovativeness, in shaping consumer behavior. The study offers insights for manufacturers and marketers to better align their products with consumer preferences in the growing functional beverage market.

18. **Dimitrova, T., & Yosifov, T.** (2021). Innovation performance of biotechnology firms in Bulgaria: Opportunities for enhancing. *Marketing and Management of Innovations*, 2, 104–114. ISSN 2227-6718 (online), ISSN 2218-4511 (print) **Web of Science** (ESCI).

### **Abstract**

This paper examines opportunities to improve innovation performance in Bulgarian biotechnology firms. The main research objective is to analyze Bulgaria's position in relation to the innovative development of bio-based production. The study employs quantitative data analysis, content analysis, and comparative situational analysis, complemented by dynamic graphical analysis. The results indicate a significant gap in the innovative development of biotechnology firms in Bulgaria. Enhancing firms' innovative capacity is therefore essential for improving their production efficiency and market performance at both the domestic and international levels. Only a limited number of firms succeed in developing sustainable competitive advantages, while many face substantial challenges in competing on the global market. Moreover, Bulgaria's membership in the European Union imposes additional regulatory requirements related to high-quality production standards, further increasing the competitive pressure on local biotechnology firms. These findings suggest that companies should focus on producing high-value-added goods—an essential foundation of innovation—and on adopting and refining effective market-oriented strategies. Based on these insights, the study proposes a comprehensive conceptual model emphasizing market orientation in biotechnology firms, which is critical for their long-term innovative development. The model for measuring innovation performance comprises three constructs: market orientation, knowledge integration orientation, and R&D effectiveness. The research findings may be useful for both established firms with a long market presence and emerging enterprises that lack stable revenue streams and extensive market or production experience.

19. **Димитрова, Т., Станев, В., & Илиева, И.** (2020). Взаимовръзка между качеството на образователния продукт и публичния образ на висшето училище. *Стратегии на образователната и научната политика*, 28(5), 468–480. ISSN 1314–8575 (online), ISSN 1310–0270 (print) **Web of Science** (ESCI).

### **Abstract**

The subjectively perceived (rather than normatively defined) quality of a higher education institution's educational product plays both a decisive and a determining role in the process of shaping and transforming the institution's public image. The article aims to present the results of a pilot survey conducted among students of Plovdiv University Paisii Hilendarski (as part of a project entitled "Strategy for Building the Public Image of Plovdiv University"), with a focus on the interrelationships and interdependencies between the components of educational product quality and the corresponding public image of higher education institutions.

20. **Димитрова, Т.** (2019). Образователният продукт и маркетинговата концепция в управлението на висшите училища. *Стратегии на образователната и научната политика*, 27(5), 508–519. ISSN 1314–8575 (online), ISSN 1310–0270 (print) **Web of Science** (ESCI).

### **Abstract**

In the context of intensifying competition among higher education institutions, the practical implementation of the marketing concept within the Bulgarian higher education system has become increasingly imperative. Marketing is, in fact, the key to the creation and delivery of a high-quality educational product. However, there are differing perspectives on what constitutes quality in higher education, on the nature of the educational product, and on how it differs from the educational service. The aim of this article is to clarify these concepts and to identify the reasons for the contradictions in their interpretation. The primary focus is on substantiating the necessity of adopting the marketing concept as a guiding principle of management. Specific actions in this direction are also outlined.

21. **Димитрова, Т.,** Десев, К., & Станев, В. (2017). Приложение на хибриден модел за анализ, комбиниращ методите АНР и SWOT – по примера на неврологичното отделение на МБАЛ „Св. Пантелеймон“ – Пловдив. *Обща медицина*, Том XIX, 4, 20–25. ISSN 1311-1817 **Scopus** (Q4, SJR = 0.101).

### **Abstract**

This paper aims to present a hybrid analytical model that enhances the functionality of the SWOT method through the quantitative precision of the Analytic Hierarchy Process (AHP). *Materials and Methods.* A questionnaire-based survey was conducted in the Neurological Ward of St. Pantaleimon Hospital. Data were collected through expert assessment, with BPMSG software employed as a complementary analytical tool. *Results.* The integration of the SWOT and AHP methods enables the weighting and prioritization of SWOT factors. The analysis indicates that the most significant factor is “the improvement of the quality of medical services.” This is followed by a key strength, namely “the treatment of acute ischemic stroke with thrombolysis as a routine procedure.” Among the weaknesses and existing threats with the highest significance,

the most prominent are “the presence of certain deviations from contemporary hospital living standards within the Neurological Ward” and “insufficient funding at the current price levels provided by the National Health Insurance Fund through clinical pathways.” *Conclusion.* Enhancing SWOT analysis with AHP allows for the quantitative assessment and analysis of initially heterogeneous or unrelated SWOT factors.

### **G7-1. Articles published in non-refereed journals with scientific review or in edited collective volumes**

22. **Dimitrova, T.** (2022). Higher education in Bulgaria and EU states – main indicators for development. *Higher Education Research*, 7(5), 153–159. ISSN 2578-935X (online), ISSN 2578-9341 (print). <https://doi.org/10.11648/j.her.20220705.13>

#### **Abstract**

The signing of the Bologna Declaration in 1999 marked a turning point in the development of higher education systems across European Union (EU) member states by promoting transnational cooperation and the creation of a more integrated, high-quality, and competitive European Higher Education Area. Despite the progress achieved in Bulgaria since the Bologna Process—such as improved access to higher education, a higher share of graduates, enhanced quality, and modernization of governance—significant differences compared to other European higher education systems remain. The aim of this paper is to analyze the levels and dynamics of key higher education indicators in Bulgaria and across EU member states, grouped into three categories: participation in higher education, academic staff, and public expenditure on higher education. The analysis draws on publicly available data from Eurostat (covering eight calendar years) and the Bulgarian National Statistical Institute (covering ten academic years). The findings show that while the total number of higher education students in the EU has increased, Bulgaria has experienced a persistent decline. Moreover, the highest relative share of professors aged 55-64 is observed only in Bulgaria and Finland. Although public expenditure on higher education in Bulgaria has increased, it remains below the EU average. The results may be of value to academics, public institutions, and other stakeholders.

23. Dimitrova, G., & **Dimitrova, T.** (2022). Competitive positioning of the Bulgarian mobile operators and digital transformation. *Trakia Journal of Sciences*, 20(1), 19–28. ISSN 1313-3551 (online). <https://doi.org/10.15547/tjs.2022.s.01.003>

#### **Abstract**

Ongoing processes of globalization, digitalization, and technological development have necessitated the transition of economic and social sectors toward the conditions of Industry 4.0 and the utilization of digital potential. This need became particularly evident during the COVID-19 pandemic, given the growing demands of the economy and society for high-speed connectivity, communication, data sharing, information provision, training, and remote work. At

the same time, the main priorities for sustainable growth and competitiveness in EU member states—alongside the development of the digital economy—include the transition to a green economy and the response to environmental challenges. These priorities involve rethinking energy efficiency measures, improving infrastructure and networks, and accelerating modernization. Taken together, these developments underscore the importance of the telecommunications sector as a key enabler of both digital and green transformation processes. In turn, these transformations directly influence the innovation and investment activities of telecommunications firms, shaping their competitive positioning and long-term development. The main objective of this publication is to highlight opportunities for the competitive positioning of Bulgarian mobile operators in the context of the digital and green transformation of the national economy.

24. Angelova, M., **Dimitrova, T.**, & Pastarmadzhieva, D. (2021). The effects of globalization: Hyper consumption and environmental consumer behavior during the Covid-19 pandemic. *International Journal of Economics and Business Administration*, Volume IX, 4, 41–54. ISSN 2241-4754–159. doi: 10.11648/j.her.20220705.13

#### **Abstract**

The article examines the impact of globalization on consumption and environmentally oriented consumer behavior in the context of the COVID-19 pandemic. It presents the first stage of a three-stage research project aimed at identifying relationships between the pandemic, consumption, and environmental protection. The initial hypothesis assumes that the pandemic leads to an increase in consumption and that increased consumption has a negative impact on the environment. To test this hypothesis, a desk-based study was conducted using data from Eurostat and the Environmental Performance Index for the period April-August 2021. The results indicate that the pandemic did not lead to an increase in consumption and that consumption did not have a significant impact on environmental protection. The limitations of the available data necessitate the development of an original methodological framework and the subsequent collection of primary data. The findings contribute to a better understanding of the effects of pandemic situations on consumption and environmentally oriented consumer behavior and may support government policies and business decision-making in the management of value creation chains by limiting hyperconsumption and promoting higher environmental efficiency.

25. **Dimitrova, T.**, & Desev, K. (2020). Measurement model of brand loyalty within the higher education sector. *Балканско научно обозрение*, Том 4, 2(8), 49–53. ISSN 2603-4867.

#### **Abstract**

The concept of brand establishment, development, and management has become widely accepted in the fields of education and research due to the increasing intensity of competition within higher education systems. Examining and understanding student loyalty toward educational brands is of

critical importance, as it provides valuable insights for managerial decision-making aimed at reducing student attrition, lowering dropout rates, and attracting new students as consumers of the educational product. This paper examines key marketing and branding aspects of the higher education sector. It also presents an original conceptual model for measuring student brand loyalty within the higher education system. The model comprises seven operationalized variables: brand associations, brand information dissemination and sufficiency, perceived quality, student experience, brand trust, student brand engagement, and brand satisfaction.

26. Stoychev, L., **Dimitrova, T.**, & Desev, K. (2019). Planning and effectiveness evaluation of marketing communication. *Балканско научно обозрение*, Том 3, 1(3), 93–96. ISSN 2603-4867.

### **Abstract**

Like any contemporary business function, marketing requires management. In the context of the information overload characteristic of the 21st century, this need is particularly evident in the field of marketing communication (MC). Nevertheless, the academic literature offers limited comprehensive resources that address MC management in its full scope and across the complete range of instruments involved, including advertising, public relations, direct marketing, personal selling, sales promotion, internet marketing, and social media marketing. This article focuses on two fundamental managerial dimensions of MC: planning and the evaluation of effectiveness as a control function with a corrective role. A distinction is drawn between the strategic and tactical levels of marketing communication management, illustrated through relevant models and planning and evaluation techniques. The differences between a communication plan and a communication strategy—often conflated in practice—are clarified, and the essential components of each are identified. With regard to effectiveness evaluation, the article emphasizes the importance of assessing outcomes at different levels—cognitive, affective, and behavioral. Selected measurement approaches for evaluating results are discussed in relation to the specific characteristics of different marketing communication instruments.

27. **Dimitrova, T.** (2017). Wine drinks in Bulgaria: Key trends and future perspectives. *Trakia Journal of Sciences*, 15, 82–86. ISSN 1313-7069.

### **Abstract**

This paper reviews the wine market in Bulgaria. It outlines key market trends using the latest available data on production, volume, and value by wine category, as well as transaction volumes, imports and exports, profitability, liquidity, and indebtedness. The paper also examines the impact of selected microeconomic and macroeconomic factors affecting the industry. For the purposes of this study, the market is defined to include sparkling wines, still (table) wines, and special wines.

28. Dimitrova, G., & **Dimitrova, T.** (2017). Competitiveness of the universities: Measurement capabilities. *Trakia Journal of Sciences*, 15, 311–316. ISSN 1313-7069.

#### **Abstract**

In recent years, the issue of university competitiveness has become increasingly relevant. This development is not accidental, given that there are 51 universities operating in Bulgaria (37 public and 14 private). Under such conditions, it is essential to pursue strategies aimed at identifying and developing diverse sources of competitive advantage. This article examines how the concept of university competitiveness is understood and systematizes the criteria used to measure this phenomenon.

29. **Димитрова, Т.** (2017). Оценка на стратегическата позиция на организацията посредством SPACE анализ. *Народностопански архив*, 3, 19–32; 21–35, ISSN 0323-9004.

#### **Abstract**

The ability to accurately determine an organization's position within its external environment—namely, in relation to other entities in the sector—is essential for strategic decision-making. It enables organizations to integrate their resources and activities effectively and plays a key role in ensuring business success and sustainability. This paper examines SPACE analysis, a tool used to analyze companies' strategic positions and evaluate their performance, which remains relatively underexplored in marketing management theory and practice. The paper highlights several advantages of the method and systematizes key SPACE factors most commonly used to assess the strategic position of organizations, drawing on Russian- and English-language sources. The method is applied to evaluate the strategic position of an industrial enterprise in the sector of wine production from fresh grapes.

30. Yosifov, T., & **Dimitrova, T.** (2015). The Banking Sector Product Innovations – Gearing Factors for Customer Confidence. *Trakia Journal of Sciences*, 13, 362–367. ISSN 1313-7069.

#### **Abstract**

Access to bank credit in Bulgaria raises a number of contemporary issues that vary in nature. On the one hand, banks demonstrate a relatively low level of confidence in the market environment faced by Bulgarian enterprises; on the other hand, the confidence of market participants in banks also appears to be weakened. The aim of this paper is to identify a “bottleneck” in the market relationship between banks and their customers. Identifying this bottleneck serves as a basis for analyzing the challenges involved in alleviating the existing tensions within this market relationship. The authors argue that the use of product innovations in the banking sector should

be approached from a marketing perspective, as such innovations can stimulate interbank competition—one of the key mechanisms for easing credit conditions.

## **G7-2. Reports published in non-refereed journals with scientific review or in edited collective volumes**

31. Desev, K., & **Dimitrova, T.** (2023). An Analysis of Cryptocurrency Adoption and its Challenges for Bulgarian Business. In *Proceedings of the International Scientific Conference Remarketing the Reality* (694–700). ISBN 978-954-21-1134-4. <https://ue-varna.bg/uploads/filemanager/303/publishing-complex/2022/Reality-remarketing-2022.pdf>.

### **Abstract**

In today's dynamic environment and conditions of market uncertainty, an increasing number of companies are adopting unconventional and innovative approaches to stimulate consumer interest and attract new customers. In recent years, a number of pioneering business organizations have embraced alternative payment methods, such as cryptocurrencies. According to a 2020 publication by Fundera, more than 15,000 companies accept Bitcoin as a means of payment. Research in the field of crypto payments confirms a significant increase in sales to new customers, as well as a substantial rise in average spending for transactions carried out using cryptocurrencies. This is one of the reasons why global companies such as KFC and Subway have adopted and actively promoted this type of payment. Businesses in Bulgaria are also keeping pace with this trend. More than 50 entities are registered in the national register of providers offering exchange services between virtual currencies and fiat currencies without gold backing, as well as wallet custody services. Through these providers, Bulgarian enterprises are able to accept, store, or convert received cryptocurrencies into Bulgarian levs. The aim of this study is to analyze the practices of Bulgarian businesses in using cryptocurrencies as a means of payment and to assess the commercial effects of their adoption.

32. Ганчева, А., & **Димитрова, Т.** (2020). Тенденции в маркетинга на висше образование и обучителен процес. В *Икономическа и социална [dez]интеграция* (582–591). ISBN 978-619-202—566-3 (online), ISBN 978-619-202-565-6 (print).

### **Abstract**

The purpose of this report is to highlight current trends in the marketing of the educational product offered by higher education institutions worldwide. Several innovative teaching methods and techniques appropriate to contemporary conditions are presented. An eight-factor model of the determinants of the educational process is proposed.

33. **Димитрова, Г., & Димитрова, Т.** (2020). *Конкурентна позиция на висшите училища. СУБ – Пловдив*, 62–67. ISSN 1311.9400.

## **Abstract**

One of the key challenges facing the European Union is the development of globally competitive education systems as a prerequisite for enhancing the competitiveness of higher education institutions (HEIs). The specific characteristics of the educational environment in Bulgaria are evolving in line with the dynamics of macroeconomic conditions. Bulgarian HEIs are influenced both by the processes of globalization and internationalization and by intensifying competition among institutions. According to data from the National Statistical Institute, 54 accredited higher education institutions operate in Bulgaria, which logically raises the issue of their competitive positioning and development in a highly competitive environment—an issue that constitutes the focus of this article. The aim of the study is to systematize selected theoretical perspectives related to the competitive positioning of organizations and to propose specific indicators for assessing the competitive position of higher education institutions.

34. **Димитрова, Т.** (2018). *Маркетингът в системата на висшето образование. В Маркетингът и международните икономически отношения в съвременето – тенденции, перспективи и предизвикателства* (68–83). ISBN 978-619-202-380-5.

## **Abstract**

Marketing in higher education is increasingly recognized as a necessary business function in the context of intensified competition and the market-oriented transformation of the system. Following the introduction of academic autonomy, Bulgarian higher education institutions have gradually shifted toward customer-oriented management models. State intervention through funding, accreditation, and regulatory frameworks has shaped a model of managed competition that influences the application of the marketing concept. The educational product is viewed as a complex outcome of educational, research, and administrative activities. The quality of higher education is associated with graduates' employability, but it is not limited to this dimension alone. Particular emphasis is placed on the role of academic staff as a key factor in the competitiveness of higher education institutions. The text argues for the necessity of strategic marketing management and a customer-centric approach, highlighting the importance of marketing as a managerial philosophy for the sustainable development of higher education in Bulgaria.

## **E20. Published university textbook**

35. **Димитрова, Т.** (2018). *Маркетингов мениджмънт, първа част. УИ „П. Хилендарски“*. ISBN 978-619-202-333-1, (198 с.).

## **Abstract**

The textbook *Marketing Management* is designed to support the education of undergraduate students majoring in Marketing and Business Management in their fourth year of study at the

Faculty of Economic and Social Sciences of Plovdiv University Paisii Hilendarski. It includes core concepts and definitions, discussion questions, and sample exam tests, and provides foundational knowledge on the essence of the concepts of marketing, management, and marketing management (MM); the functions, principles, and significance of MM; the stages of marketing planning; the marketing environment; as well as the nature, types, and stages of the marketing audit. The textbook also examines key analytical tools and techniques that support the work of the marketing manager, such as SWOT analysis, SPACE analysis, industry analysis, competitor analysis, and methods for measuring and evaluating competitiveness.

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